UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/053,989	01/19/2002	Curtis Gregory Kelsay	10017364-1	5126

7590 04/03/2007

HEWLETT-PACKARD COMPANY
Intellectual Property Administration
P.O. Box 272400
Fort Collins, CO 80527-2400

EXAMINER	
WORKU, NEGUSSIE	
ART UNIT	**PAPER NUMBER**
2625	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/03/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	10/053,989	KELSAY, CURTIS GREGORY	
	Examiner	Art Unit	
	Negussie Worku	2626	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12/26/06*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-7,9-25 and 29-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-7,9-25 and 29-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *19 January 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Applicant's remarks and/or arguments, see page 7 through 14, filed on 12/26, 2006, with respect to claims 1-7, 9-25, 29 through 32 have been carefully reviewed. Applicant's arguments have been respectfully considered but are not found persuasive. A response to applicant's arguments has been discussed in the last pages of this Office action. The Office action made final.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1-7, 9-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Taira (USP 5,873,308).

With respect to claim 1, Taira teaches an optical scanning apparatus (image scanner of fig 3) comprising: a scanner body (scanner housing 32 of fig 4); and a self-propelled light bar assembly (moving unit 30 of fig 4, which includes light source unit 20, to move parallel along the guide bar 34, simultaneously with motor 44, a track 38 and

pinion 39 mesh with track 38 of fig 4) supported within the scanner body (scanner body 5 of fig 3, col.6, lines 5-10).

With respect to claim 2, Taira teaches an optical scanning apparatus (image scanner of fig 3), and further comprising a platen (support glass 50 of fig 3) supported by the scanner body, (scanner body 52 of fig 3) and wherein the self-propelled light bar assembly (moving unit 30 of fig 4, which includes light source unit 20, to move parallel along the guide bar 34, simultaneously with motor 44, along a track 38, pinion 39 mesh with track 38 of fig 4) comprises a drive wheel (a pinion 39 mesh with track 38 of fig 4) in contact with a drive track (drive track 38 of fig 4) defined on the platen (support glass 50 of fig 3) to allow the drive wheel (39 of fig 4) to drive the light bar assembly (30 of fig 4), along the platen (platen support glass 50 of fig 4).

With respect to claim 3, Taira teaches an optical scanning apparatus (image scanner of fig 3), and further comprising a drive track (track 38 of fig 4) supported within the scanner body, (52 of fig 3), and wherein the self-propelled light bar assembly (moving unit 30 of fig 4, which includes light source unit 20, to move parallel along the guide bar 34, simultaneously with motor 44, along a track 38, pinion 39 mesh with track 38 of fig 4) comprises a drive wheel (39 of fig 4) in contact with the drive track (track 38 of fig 4), to allow the drive wheel (39 of fig 4) to propel the light bar assembly (30 of fig 4) with respect to the scanner body (scanner body 52 of fig 3).

With respect to claim 4, Taira teaches an optical scanning apparatus (image scanner of fig 3), and further comprising a platen (support glass 50 of fig 3) supported by the scanner body (scanner body 52 of fig 3) and having a first edge, and wherein the drive track (38 of fig 4), is positioned adjacent to the first edge of the platen (support glass platen 50 of fig 3).

With respect to claim 5, Taira teaches an optical scanning apparatus (image scanner of fig 3), and wherein the light bar assembly (moveable unit 30 of fig 4) comprises a biasing member (motor 44 of fig 4, configured to urge the drive wheel (pinion 39 of fig 4) towards the drive track (38 of fig 4).

With respect to claim 6, Taira teaches an optical scanning apparatus (image scanner of fig 2), and wherein the light bar assembly (30 of fig 3 or 4), is supported within the scanner body (52 of fig 3) by the drive track (track 38 and shaft 34 of fig 4).

With respect to claim 7, Taira teaches an optical scanning apparatus (image scanner of fig 3 and 4), and wherein the drive wheel (gear 39 of fig 4) includes a rubberized outer portion, and the drive track (track 38 of fig 4) has a non-smooth surface to allow the rubberized outer portion of the drive wheel to engage the drive track (38 of fig 4).

With respect to claim 9, Taira teaches an optical scanning apparatus (image scanner of fig 3 and 4), and wherein the light bar assembly (30 of fig 3 and 4) comprises a linear electric motor (motor 44 of fig 4) configured to propel the light bar assembly 930 of fig 3 and 4).

With respect to claim 10, Taira teaches an optical scanning apparatus (image scanner of fig 3 and 4), and wherein the light bar assembly (30 of fig 3 and 4) comprises a linear electric motor (motor 44 of fig 4) configured to propel the light bar assembly (30 of fig 3 and 4).

With respect to claim 11, Taira teaches an optical scanning apparatus (image scanner of fig 3 and 4), a scanner body (52 of fig 3); a light bar assembly (30 of fig 3 and 4) supported within the scanner body (52 of fig 3), the light bar assembly (30 of fig 3 and 4), comprising a drive motor, (44 of fig 4), and light source, (20 of fig 4) the light bar assembly (30 of fig 4) configured to move the drive motor (44 of fig 4) and the light source, (light source unit 20 of fig 4, moves parallel along the shaft 34 of fig 4).

With respect to claim 12, Taira teaches an optical scanning apparatus (image scanner of fig 3 and 4), and wherein the scanner body (scanner body 52 of fig 3), defines an inside upper surface, and wherein the drive wheel (pinion gear 39 of fig 4) contacts the inside upper surface of the scanner body (scanner body 52 of fig 3).

With respect to claim 13, Taira teaches an optical scanning apparatus (image scanner of fig 3 and 4), and further comprising a support surface (support glass 50 of fig 3) within the scanner body, (scanner body 52 of fig 3) upon which the light bar assembly (30 of fig 3 and 4) is supported, and wherein the light bar assembly (30 of fig 3 and 4) further comprises support wheels (shaft 34 of fig 4, pinion gear 39 and track 38) which rest on the support surface, (support surface 50 of fig 3).

With respect to claim 14, Taira teaches an optical scanning apparatus (image scanner of fig 3 and 4), and wherein the light bar assembly (30 of fig 3 and 4) further comprises biasing members (shaft 34 of fig 4) which support the support wheels (gear pinion 39 on the motor shaft 44 of fig 4) on the light bar assembly, (30 of fig 3 and 4), and wherein the biasing members (shaft 34 of fig 4) urge the support wheels against the support surface, (50 of fig 3) and thereby urge the drive wheel (motor shaft 44 of fig 4) against the drive surface.

With respect to claim 15,Taira teaches an optical scanning apparatus (image scanner of fig 3 and 4), and further comprising a position detecting system to allow the detection of the position of the light bar assembly with respect to the scanner body, (light source unit 10 of fig 4, to moves parallel along the guide rail means 7 and 8 of fig 4).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 16-19, 22-25, 29-32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taira (USP 5, 873,534), in view of Novak et al. (USP 6,753,534).

With respect to claim 16, Taira teaches an optical scanning apparatus (image scanner of fig 3), comprising: a scanner body (scanner body 52 of fig 3); a light bar assembly (light source unit 30 of fig 4, to moves parallel along the ([two guide bar 34 and [34] of fig 4); and wherein the light bar assembly (30 of fig 3) is supported in the scanner body (52 of fig 3);

Taira does not teach or disclose the magnet-track portion in proximity to the slider portion to thereby allow the light bar assembly to be driven along the magnet-track portion; a magnet-track portion of a linear electric motor fixedly supported within the scanner body.

Novak et al., in the same area of lithographic scanning system (as shown in fig 1 and 2), teaches the magnet-track portion (40 and 44 of fig 2, col.5, lines 20-30), in proximity to the slider portion (slide 30 of fig 1) to thereby allow the light bar assembly

(support pat-form assembly 32, 33 of fig 2, col.5, lines 20-30) to be driven along the magnet-track portion (40 and 44 of fig 2, col.5, 25 -30); a magnet-track portion (40 and 44 of fig 2) of a linear electric motor (linear motor 34 and 36 of fig 2, c0l.5, 35-45) fixedly supported within the scanner body (fig 1 and 2).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging apparatus of Taira to include: the magnet-track portion in proximity to the slider portion to thereby allow the light bar assembly to be driven along the magnet-track portion; a magnet-track portion of a linear electric motor fixedly supported within the scanner body.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging device of Taira by the teaching of Novak et al., because of the following reasons: (a) it would have allowed a user to shield the magnetic fields created by the moving motors or other moving magnetic permeable components from the electron beam lithography system, col.1, lines 62-68. (b) It would have allow users to avoid a shift of the electron beam by a magnetic fields and cause misalignment of the pattern on the article, as discussed by Novak et al, in col.1, lines 62-68 through col.2, lines 1-5.

With respect to claim 17, Taira teaches an optical scanning apparatus (image scanner of fig 3 and 4), and wherein the light bar assembly (30 of fig 3 and 4) is suspended.

Taira does not teach or disclose the magnet-track portion.

Novak et al., in the same area of lithographic scanning system, (as shown in fig 1 and 2), teaches the magnet-track portion (40 and 44 of fig 2, col.5, lines 20-30).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging apparatus of Taira to include: the magnet-track.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging device of Taira by the teaching of Novak et al., because of the following reasons: (a) It would have allow users to avoid a shift of the electron beam by a magnetic fields and cause misalignment of the pattern on the article, as discussed by Novak et al, in col.1, lines 62-68 through col.2, lines 1-5.

With respect to claim 18, Taira teaches an optical scanning apparatus (image scanner of fig 3 and 4), and wherein the light bar assembly (30 of fig 3 and 4).

Taira do not teach or disclose light bar assembly rests on top of the magnet-track portion.

Novak et al., in the same area of lithographic scanning system, (as shown in fig 1 and 2), teaches the magnet-track portion (40 and 44 of fig 2, col.5, lines 20-30).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging apparatus of Taira to include: the magnet-track.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging device of Taira by the teaching of

Novak et al., because of the following reasons: (a) It would have allow users to avoid a shift of the electron beam by a magnetic fields and cause misalignment of the pattern on the article, as discussed by Novak et al, in col.1, lines 62-68 through col.2, lines 1-5.

With respect to claim 19, Taira teaches an optical scanning apparatus (image scanner of fig 3 and 4), and wherein the light bar assembly (30 of fig 3 and 4) rests on a support surface (guide bar (shaft) 34 of fig 4) defined within the scanner body (52 of fig 3) such that the slider-portion (shaft guide bar 34 of fig 4).

Taira do not teach the magnetic-track portions are not in direct contact with one another.

Novak et al., in the same area of lithographic scanning system, (as shown in fig 1 and 2), teaches the magnet-track portion (40 and 44 of fig 2, col.5, lines 20-30).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging apparatus of Taira to include: the magnet-track.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging device of Taira by the teaching of Novak et al., because of the following reasons: (a) It would have allow users to avoid a shift of the electron beam by a magnetic fields and cause misalignment of the pattern on the article, as discussed by Novak et al, in col.1, lines 62-68 through col.2, lines 1-5.

With respect to claim 22, Taira teaches an optical scanning apparatus (image scanner of fig 3 an 4), and wherein: the light bar assembly (30 of fig 3 an4), is defined by a first end and a second end ((fig 3); the drive wheel is a first drive wheel, (gear 39 of fig 4) the drive track (track 38 of fig 4) is a first drive track, and the first drive wheel (gear 39 of fig 4) is supported proximate the first end of the light bar assembly, (light source unit 30 of fig 4, to moves parallel along the guide bar 34 of fig 4); the optical scanning apparatus (fig 3).

Taira do not teach a second drive track, supported within the scanner body, a second drive wheel supported proximate the second end of the light bar assembly, and in contact with the second drive track.

Novak et al., in the same area of lithographic scanning system, (as shown in fig 1 and 2), teaches a second drive track, (track 44 of fig 2) supported within the scanner body, (fig 2) a second drive wheel (36 of fig 2) supported proximate the second end of the light bar assembly, (fig 2) and in contact with the second drive track (44 of fig 2, col.5, lines 20-30).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging apparatus of Taira to include: a second drive track, supported within the scanner, a second drive wheel supported proximate the second end of the light bar assembly, and in contact with the second drive track.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging device of Taira by the teaching of

Novak et al., because of the following reasons: (a) It would have allow users to avoid a shift of the electron beam by a magnetic fields and cause misalignment of the pattern on the article, as discussed by Novak et al, in col.1, lines 62-68 through col.2, lines 1-5.

With respect to claim 23, Taira teaches a method of moving a light bar assembly (30 of fig 3 and 4), within a scanner body (52 of fig 3) of an optical scanning apparatus (image scanner of fig 3), comprising: providing a motive source (motor 44 of fig 4) supported by the light bar assembly (30 of fig 4); and moving the light bar assembly, using the motive source, (motor 44 of fig 4).

Taira do not teach using stationary track with in the scanner body.

Novak et al., in the same area of lithographic scanning system, (as shown in fig 1 and 2), teaches a drive track, (track 44 of fig 2) supported within the scanner body, (fig 2, col.5, lines 20-30).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging apparatus of Taira to include: stationary track with in the scanner body.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging device of Taira by the teaching of Novak et al., because of the following reasons: (a) It would have allow users to reduce a vibration with in the scanner body that might affect the distribution of light over the object to be scanned. (b) It would have help users to avoid a shift of the electron beam

by a magnetic fields that cause misalignment of the pattern on the article, as discussed by Novak et al, in col.1, lines 62-68 through col.2, lines

With respect to claim 24, Taira teaches the method, and wherein the light bar assembly (30 of fig 3 and 4) is moved to a plurality of position, the method further comprising determining the position of the light bar assembly as it is moved (col.6, lines 5-10).

Taira do not teach a stationary track with in the scanner body.

Novak et al., in the same area of lithographic scanning system, (as shown in fig 1 and 2), teaches a drive track, (track 44 of fig 2) supported within the scanner body, (fig 2, col.5, lines 20-30).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging apparatus of Taira to include: a stationary track with in the scanner body.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging device of Taira by the teaching of Novak et al., because of the following reasons: (a) It would have allow users to reduce a vibration with in the scanner body that might affect the distribution of light over the object to be scanned. (b) It would have help users to avoid a shift of the electron beam by a magnetic fields that cause misalignment of the pattern on the article, as discussed by Novak et al, in col.1, lines 62-68 through col.2, lines

With respect to claim 25, Taira teaches the method, (fig 3 and 4) and further comprising urging the light bar assembly (30 of fig 3 and 4) against the stationary track (shaft 34 of fig 4), while moving the light bar assembly (moveable unit 30 of fig 4) along the stationary track (light source unit 24 of fig 4, to moves parallel along the guide bar 34 of fig 4).

Taira do not teach using stationary track with in the scanner body.

Novak et al., in the same area of lithographic scanning system, (as shown in fig 1 and 2), teaches a drive track, (track 44 of fig 2) supported within the scanner body, (fig 2, col.5, lines 20-30).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging apparatus of Taira to include: stationary track with in the scanner body.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging device of Taira by the teaching of Novak et al., because of the following reasons: (a) It would have allow users to reduce a vibration with in the scanner body that might affect the distribution of light over the object to be scanned. (b) It would have help users to avoid a shift of the electron beam by a magnetic fields that cause misalignment of the pattern on the article, as discussed by Novak et al, in col.1, lines 62-68 through col.2, lines

With respect to claim 29, Taira teaches the method (fig 4) and further comprising

urging the light bar assembly (30 of fig 3 and 4), while moving the light bar assembly (30 of fig 3 and 4).

Taira do not teach a stationary track with in the scanner body.

Novak et al., in the same area of lithographic scanning system, (as shown in fig 1 and 2), teaches a drive track, (track 44 of fig 2) supported within the scanner body, (fig 2, col.5, lines 20-30).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging apparatus of Taira to include: stationary track with in the scanner body.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging device of Taira by the teaching of Novak et al., because of the following reasons: (a) It would have allow users to avoid a vibration with in the scanner body that might affect the distribution of light over the object to be scanned. (b) It would have help users to avoid a shift of the electron beam by a magnetic fields that cause misalignment of the pattern on the article, as discussed by Novak et al, in col.1, lines 62-68 through col.2, lines

With respect to claim 30, Taira teaches the scanner (fig 3 and 4) further comprising a support member (scanner body 52 of fig 3) the light (light source 24 of fig 4), and the motor (44 of fig 4) fixedly attached to the support member (scanner body 52 of fig 3), the support member (moveable member 30 of fig 4) movable within the scanner (scanner body 52 of fig 3).

With respect to claim 31, Taira teaches the scanner (fig 3 and 4) wherein the motor (44 of fig 4) is configured to linearly move the support member (guide bar 34 of fig 4) within the scanner (with in scanner body 52 of fig 3).

With respect to claim 32, Taira teaches the scanner (fig 3), wherein the motor (44 of fig 4) is connected to the drive wheel (38 of fig 4) via a series of meshing gears, (39 of fig 4) the drive wheel (38 of fig 4) contacting a track (motor shaft 44 of fig 4) within the scanner, (5 of fig 3) the drive wheel (38 of fig 4) carried by the support member (a shaft or a guide bar 34 of fig 4).

6. Claims 20 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Taira (USP 5,873,308) in view of Novak et al. (USP 6,753,534) as applied to claims 16 -19, 22- 29-32 above, and further in view of Sugano (USP 6,961,154)

With respect to claim 20, Taira do not teach an optical scanning apparatus, and further comprising a position detecting system to allow the detection of the position of the light bar assembly with respect to the scanner body.

Sugano teaches an optical scanning apparatus, (fig 1) and further comprising a position detecting system (sensor 18 of fig 1) to allow the detection of the position of the light bar assembly ((light source mechanism 8 of fig 1) with respect to the scanner body (col.7, line 60, through col.8, lines 10-15).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging apparatus of Taira to include: a position detecting system.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging device of Taira by the teaching of Sugano, because of the following reasons: It would have allow users to avoid unnecessary amount of light from certain area of the document that might affect the quality of the image reading system.

With respect to claim 21, Natori in combination with Sugano still do not teaches wherein the position detecting system (member 26 of fig 2, col.4, lines 50-55) serves as position sensor comprises: a linear encoding strip (37 of fig 1, col.4, lines 20-25) supported within the scanner body (fig 1) and mounted parallel to the magnet-track portion (37 of fig 1); and a sensor (26 of fig 1) supported by the light bar assembly (carriage 22 of fig 1) and configured to detect the linear encoding strip, (linear encoding strip 37 of fig 1, col.4, lines 20-25).

Therefore, it would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging apparatus of Taira as modified by Sugano to include: wherein the position detecting system, position sensor comprises: a linear encoding strip supported within the scanner body and mounted parallel to the magnet-track portion; and a sensor supported by the light bar assembly.

It would have been obvious to a person with ordinary skill in the art at the time the invention was made to have modified the imaging device of Taira as modified by Sugano by the teaching of Novak et al., because of the following reasons: It would have help users to avoid a shift of the electron beam by a magnetic fields that cause misalignment of the pattern on the article, as discussed, in col.1, lines 62-68 through col.2, lines 23-25.

Response for Arguments

7. Applicant's remarks and/or arguments, filed on 12/26, 2006, with respect to claims 1-7, 9-25, 29 through 32 have been carefully reviewed. Applicant's arguments have been respectfully considered but are not found persuasive.

Referring to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., "self-propelled" containing within itself the means for its own propulsion, as indicted in page 9 of the last paragraph applicant's response) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993), for example the "self-propelled containing within itself the means for its own propulsion" is not discussed or disclosed any where in the claims or in the application description.

A common definition of the terms in light Webster on line dictionary would not help to get into the real definition of the claimed limitation. The terms used in the claims language are interpreted with in the scope of claimed invention or in light of application description not in common definition. And therefore, the claimed limitation "self-propelled" and applicant's arguments are not consistent with description of the specification.

Therefore, Examiner contends that, in view of examiner's discussion above Taira clearly teaches a self propelled bar assembly. Specifically, as discussed in the Office action, a self-propelled light bar assembly (moving unit 30 of fig 4, which includes light source unit 20, to move parallel along the guide bar 34, simultaneously with motor 44, a track 38 and pinion 39 mesh with track 38 of fig 4) supported within the scanner body (scanner body 5 of fig 3, col.6, lines 5-10).

Furthermore, as to claim 11, applicant argues that the reference dose not teach the claimed limitation of claim 11, as whole. Examiner respectfully disagrees with applicant in that the prior art clearly teaches a light bar assembly (30 of fig 3 and 4) supported within the scanner body (52 of fig 3), the light bar assembly (30 of fig 3 and 4), comprising a drive motor, (44 of fig 4), and light source, (20 of fig 4) the light bar assembly (30 of fig 4) configured to move the drive motor (44 of fig 4) and the light source, (light source unit 20 of fig 4, moves parallel along the shaft 34 of fig 4), and therefore, claims 11 are similar to claim 1, the claimed limitation "self-propelled" and applicant's arguments are not consistent with description of the specification. Examiner contends that, in view of examiner's discussion above, Taira clearly teaches a self

propelled bar assembly. Specifically, as discussed in the Office action, a self-propelled light bar assembly (moving unit 30 of fig 4, which includes light source unit 20, to move parallel along the guide bar 34, simultaneously with motor 44, a track 38 and pinion 39 mesh with track 38 of fig 4) supported within the scanner body (scanner body 5 of fig 3, col.6, lines 5-10).

As to the arguments to claims 16, since claims are rejected in combination U.S.C 103(a), applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.,* 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Finally, in response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

Therefore, as is explained in detail herein above the rejection in view of cited prior art is proper and the Office action is final.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Negussie Worku whose telephone number is 571-272-7472. The examiner can normally be reached on 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Aung Moe can be reached on 571-272-7314. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Negussie Worku

03/23/07

SUPERVISORY PATENT EXAMINER
AUNG S. MOE
3/30/07